Assignment 2

Intermediate Microeconomics (I)

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1、Suppose a consumer has a demand function of the form:

$$\mathrm{x}(\mathrm{p}_x, p_y, p_z, m) = 1 + m(\frac{1}{4p_x} + \frac{1}{20p_z} + \frac{m}{400p_x^2})$$

Suppose that while the price of good x decreases from 4 to 2, income and other prices remain constant at m=100, $\mathrm{p}_y = 3$ and $\mathrm{p}_z = 2$.

(1) Find the change in quantity demanded.
(2) Find the magnitudes of the Slutsky substitution effect and income effect.

2、Public transportation companies and water companies often ask for price increases. Please use the theory of price elasticity to explain.

3、The demand function is $\mathrm{X(P)} = \mathrm{a} - \mathrm{bp}$. If the price changes from p to q, what is the change in consumer surplus.

4、Suppose the one individual's demand curve is $\mathrm{Q}_1 = 60 - 20P$ and another individual's is $Q_2 = 75 - 3P$.

(1) What is the market demand function?
(2) When p=20, what it the price elasticities and market demand.